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10/529,869	10/04/2005	Toshiyasu Higuma	018760-022	2255

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EXAMINER

RECEK, JASON D

ART UNIT	PAPER NUMBER
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2442

NOTIFICATION DATE	DELIVERY MODE
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12/22/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/529,869	Applicant(s) HIGUMA ET AL.	
	Examiner JASON RECEK	Art Unit 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to the RCE filed on November 12th 2009.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/12/09 has been entered.

Response to Arguments

2. Applicant's arguments filed 11/12/09 have been fully considered but they are not persuasive.

3. Applicant argues that Howard does not teach permitting or prohibiting access to an interface access unit or a control access unit (pg. 17). This argument is not persuasive. As applicant admits (pg. 17), Howard discloses controlling a device through an adapter. It is inherent that since the device can be controlled that the adapter permits access. The claim does not require prohibiting access. Even if the claim required prohibiting access the use of a firewall or filter to prohibit access through an interface is well known in the art. In response to applicant's statement that the Office

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Action did not providing a mapping of features, the rejection below has been expanded upon for further clarification.

4. Applicant argues that Howard and Fritsche do not disclose claim 12 as amended (pg. 18-19). This argument is not persuasive. Howard teaches the majority of the newly added limitations (i.e. first interface connection to a second interface, etc.), see detailed rejection below. Applicant argues that Fritsche does not disclose selection of an input/output format based on voltage information. This is also not persuasive. Fritsche teaches identifying a device based on voltage in order to communicate with that device, thus the format for input/output is selected (col. 2 ln. 31-38).

5. Applicant's arguments with respect to the rejection of claim 13 have been fully considered and are persuasive. Specifically, Howard and Van der Meulen do not disclose starting driver software ... on the basis of voltage as now recited by claim 13. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fritsche.

6. Applicant's arguments regarding claims 14-16 (pg. 21) generally repeat the previous arguments and thus are not persuasive for similar reasons. A "communication frame" is a broader version of voltage response and as such is also taught by the art.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3 and 5-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Regarding claim 1, it is directed towards an apparatus which could be a machine or manufacture however the claim does not recite any tangible physical elements that would render it such. Instead, the claim consists entirely of means language which in light of the specification could consist entirely of software. Software per se is not patentable subject matter. Claims 2-3 and 5-11 are rejected based on their dependency.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 12-16, they recite "the second input/output interface communicates data based on a corresponding input/output format" however the claims do not indicate what format it corresponds to. Therefore this limitation renders the claims indefinite because the scope cannot be determined. Please indicate what format the second interface corresponds to.

10. Claim 13 recites the limitation "the response" in the last line. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-3 and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al. US 6,728,804 B1 in view of Van der Meulen US 6,906,617 B1 and Abdulkarim US 2003/0088796 A1.

Regarding claim 1, Howard discloses "A communication adapter (col. 3 ln. 40-42, Fig. 1), "communication control means" computer program routines that handle communications (col. 4 ln. 64-67), "communication managing means that copies and saves the apparatus object" as an adapter with memory (col. 3 ln. 45-47, Fig. 1 item 24), "makes it possible to use the connection object apparatus from the network" (col. 2 ln. 39-44), and "apparatus interface means" as a communication port that enables communication with the devices (col. 3 ln. 54-56).

Howard also discloses "an apparatus interface access unit" as a communication port that enables communication with the devices, since the port is capable of communicating, it is inherent that it is an interface for accessing the apparatuses (col. 3 ln. 54-56), col. 5 ln. 50-59);

"apparatus control access unit" apparatus performs control (col. 4 ln. 67 – col. 5 ln. 3, col. 5 ln. 62-67 and col. 6 ln. 9-19).

The terms "usable according to a procedure common ..." and "usable from the communication control means ..." are not limiting because the word "usable" indicates these are merely examples (e.g. X may be "used" in manner Y). If these are intended to be limiting features of the claim please remove the optional phrase "usable".

Howard also teaches "first access control means that permits/prohibits access to the apparatus interface access unit" as providing access inherently requires a permitting means, this is provided through "the communication control means" (col. 4 ln. 10-13, 64-67) and "second access control means that permits/prohibits access to the apparatus control access unit" as providing access for controlling the device inherently requires that access is permitted, if this was not the case the device could not be controlled. Howard clearly teaches controlling a device (col. 5 ln. 50-67). As discussed above, the claims do not explicitly require "prohibiting" as the phrase "permits/prohibits" is interpreted as "permits or prohibits".

Howard does not explicitly disclose "power supply managing means" however this is taught by Van der Meulen as a power supply managing means that manages a state of power (col. 3 ln. 32-49, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

The combination of Howard and Van der Meulen does not explicitly disclose that the power managing means "manages a state of power supply of the communication adapter apparatus, and controls an operation of at least one of the communication control means ... in accordance with a state of the power supply" however this is taught by Abdulkarim (paragraphs 24, 39, 41, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Howard and Van der Meulen to manage the power of the communication adapter as taught by Abdulkarim. Abdulkarim suggests a power management system should be able to manage power consumption of all subsystems (i.e. communication adapter) for the purpose of reducing power consumption in response to environmental regulations or other conditions (paragraphs 4-5).

Regarding claim 2, Howard does not explicitly disclose "manages a charged capacity inside an adapter" or "the communication control means to limit communication according to a management state of the power supply managing means" however these are taught by Van der Meulen as a power supply managing means (col. 3 ln. 32-49, Fig. 2) and communicating only during certain periods (col. 3 ln. 60-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

Regarding claim 3, Howard does not explicitly disclose "the apparatus communication managing means to limit accesses to the apparatus object according to a management state of the power supply" however this is taught by Van der Meulen as a system which only communicates during certain power states (col. 5 ln. 12-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard by providing power management as taught by Van der Meulen for the purpose of automation. Van der Meulen teaches that monitoring power provides a user with greater control over the appliances that are connected (col. 2 ln. 1-17).

Regarding claim 5, Howard discloses "object managing means" as the apparatus understands object-oriented program code (col. 5 ln. 50-58), "state acquisition procedure setting means" as variables that may be set according to the state of a device such as light on (col. 5 ln. 59-67), "installation information managing means" as providing new program code when a new device is identified (col. 6 ln. 30-42), "network attribute managing means" as an adapter that is capable of communication on a network must have the necessary means to manage that communication (col. 3 ln. 58-62), and "network band managing means" as a communication module that handles network communication (col. 5 ln. 1-3).

Regarding claim 6, Howard discloses “generates an imaginary apparatus object on the basis of a setting command” as the adapter can create an object to represent a device (col. 6 ln. 1-14), it is not necessary that the device be connected before the object is created.

Regarding claim 7, Howard discloses “the apparatus communication managing means ... performs operation and setting for this imaginary apparatus and acquisition of a state” as the adapter controls the object and thus is able to perform state acquisition and setting of variables (col. 5 ln. 59-62), and “performs setting for running and stop of the apparatus object and acquisition of a state” as controlling the object (col. 6 ln. 5-14).

Regarding claim 8, Howard discloses “a database that holds installation information” as memory (col. 3 ln. 42) that holds database information (col. 5 ln. 40-41), “writing/reading means” are also disclosed (col. 7 ln. 37-39).

Regarding claim 9, Howard discloses “abnormality notifying means” as a monitor function that provides monitoring information to the network (col. 7 ln. 2-4, 42-45).

Regarding claim 10, Howard does not explicitly disclose “provides the connection object apparatuses with the abnormality information when data transmission through the network is impossible” however it would have been obvious to one of ordinary skill in the

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art at the time of the invention that if one line of communication is not in use (i.e., the network), another line of communication should be tried.

Regarding claim 11, it is a combination of claims 1 and 2, therefore it is rejected for similar reasons.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howard and Fritsche et al. US 6,567,007 B1.

Regarding claim 12, Howard discloses "A communication adapter" (col. 3 ln. 41-42), "first input/output interface that is connected to a second input/output interface of a home appliance" (Fig. 3, items 58 and 60 are the interfaces) and "network interface" (col. 3 ln. 53-54, Fig. 1), "a CPU" and "storage" (col. 3 ln. 46-47, Fig. 1), "pieces of driver software, each driver controlling hardware" as program code for communicating with the device (col. 5 ln. 15-18), and "selects driver software corresponding to the input/output format of the second input/output interface of the home appliance" as identifying the device and selecting the appropriate software (col. 6 ln. 38-64, Fig. 5 steps 86-90).

Howard does not explicitly disclose "CPU distinguishes an input/output format of the second input/output interface of the home appliance on the basis of voltage information supplied from the home appliance ... and selects driver software corresponding to the input/out system based on the supplied voltage information" however this is taught by Fritsche as identifying a device based on voltage information

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(col. 2 ln. 5-18, col. 6 ln. 17-55) and loading data (i.e. driver) for the operation of that device (col. 2 ln. 31-38).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard with the teachings of Fritsche for the purpose of identifying a device and how to interface with that device by voltage information. Howard suggests there are multiple ways to identify a device (col. 6 ln. 29-48), incorporating the teachings of Fritsche simply adds an additional method for identification.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Howard and Fritsche in view of Van der Meulen.

Regarding claim 13, it recites some of the language from claim 12, that language is rejected for the same reasons.

Howard also discloses "the storage device has plural pieces of driver software, each driver directly controls hardware a respective second input/output interface" as a translator module that contains computer program instructions for communicating and controlling the device (col. 5 ln. 15-35), and "on the basis of a [response] returned from the home appliance ... selecting driver software of the serial input/output format having a ... type identified in the response" as receiving a response and selecting translator software (col. 5 ln. 15-50, col. 6 ln. 38-45, Fig. 5 steps 88-90). By selecting software for interfacing and controlling the device it would have been obvious to one of ordinary skill in the art that the driver software would have a clock type corresponding to the device.

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The purpose of selecting software is to interface and control the device, thus the software is inherently compatible and thus would include a required clock type.

Howard does not explicitly disclose selecting driver software “on the basis of a voltage returned from the home appliance” however this is taught by Fritsche as identifying a device based on voltage information (col. 2 ln. 5-18, col. 6 ln. 17-55) and loading data (i.e. driver) for the operation of that device (col. 2 ln. 31-38). The motivation to combine is the same as given above.

The combination of Howard and Fritsche does not explicitly disclose “supplies a clock signal from the communication adapter” however this is taught by Van der Meulen as a power connection which supplies a synchronous signal (col. 3 ln. 40-46, Fig. 2). Howard teaches that a device may be a personal computer system (col. 4 ln. 26-30) and depending on the type of network used (col. 4 ln. 5-10) a clock signal may be present between devices. A communication network that contains clock signals is well known in the art (as evidenced by Van der Meulen). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a clock signal as taught by Van der Meulen. This is merely the combination of known elements according to their established function in order to yield a predictable result.

15. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al. US 6,728,804 B1 in view of Van der Meulen US 6,906,617 B1.

Regarding claim 14, it recites some of the language from claims 12 and 13, that language is rejected for the same reasons. Howard also discloses “selects driver software held by the storage on the basis of a communication frame that is sent from an electrical apparatus” as identifying a device based on communication received from it (col. 6 ln. 30-40).

Regarding claim 15, it recites some of the language from claims 12 and 13, that language is rejected for the same reasons. Howard also discloses “storage holds attribute information” (col. 6 ln. 11-12) and “which can be monitored, controlled and set” (col. 6 ln. 66-67). These limitations are also disclosed by the summary of Howard as an adapter that contains updateable memory, such memory holds an object or identification of a device (col. 1 ln. 60 – col. 2 ln. 25). Howard does not explicitly disclose that the object or identification of the device comprises model names, and power consumption however it would have been obvious to one of ordinary skill in the art to include these. The process of identifying something includes attaching a name and other defining characteristics.

Regarding claim 16, , it recites some of the language from claim 15, that language is rejected for the same reasons. Howard also discloses “the communication adapter selects one piece of the attribute information on the basis of a communication frame sent from an electrical apparatus” as the adapter updates attribute information with information sent over the network (col. 7 ln. 33-36).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moon et al. US 2003/0179746 A1 discloses a home appliance with a network interface (abstract).

Sahinoglu et al. US 2003/0107476 A1 discloses a communication interface for integrating at least two networks for connecting a home appliance to a network (paragraph 19).

Sumita et al. US 2003/0100962 A1 discloses an appliance control system (abstract).

Kim et al. US 2003/0097452 A1 discloses a home network for interfacing with appliances (abstract).

Lee US 2002/0196158 A1 discloses an appliance control system (abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON RECEK whose telephone number is (571)270-1975. The examiner can normally be reached on Mon - Fri 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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